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Deterrence, Disarmament, and Post-Cold War Stability: Enhancing Security for Both "Haves" and "Have Nots"

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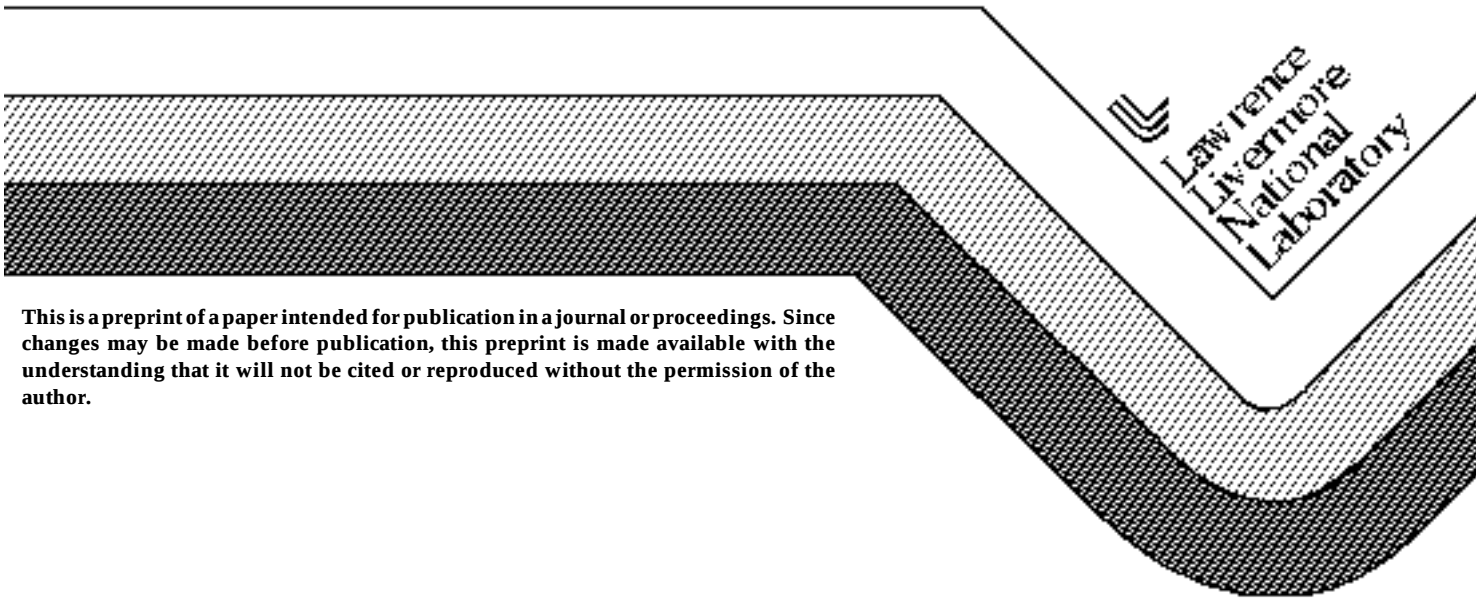

DETERRENCE, DISARMAMENT, AND POST-COLD WAR STABILITY: ENHANCING SECURITY FOR BOTH "HAVES" AND "HAVE NOTS"

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DETERRENCE, DISARMAMENT, AND POST-COLD WAR STABILITY: ENHANCING SECURITY FOR BOTH "HAVES" AND "HAVE NOTS"*

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Introduction

The concept of stability, like the idea of deterrence, predates both the Cold War and the nuclear age. Nevertheless, both received their most extensive examination during that period. Thus, much of the literature on stability and deterrence is focused on a bipolar world, superpower perceptions, the declaratory policies of Washington and Moscow, and weapons of mass destruction in the hands of two sides.

Of course, this literature recognized that much of the competition between the United States and the Soviet Union took place in the midst of regional disputes or involved internal conflicts within the boundaries of individual nations. The literature often referenced conventional forces, particularly in the NATO-Warsaw Pact sense. Cold War analysis also acknowledged that stability and deterrence calculations could not be completely separated from broader political and economic circumstances.

This recognition of a wider context was more than a gratuitous caveat. Each year of the Cold War reconfirmed that nuclear weapons could not deter all conflict. Extensive analysis was made of conventional war scenarios and conditions that might lead to limited wars, civil wars, and revolution. The primary organizing theme of that era, however, remained the bipolar competition.

The centerpiece of the analysis involved the strategic nuclear balance between the United States and the Soviet Union. The nuclear age, more than with dynamite, machine guns, submarines, and even poison gas, had put a premium on avoiding war. Deterrence, even when based upon doctrines and forces focused on so-called "war fighting," was predominantly about prevention. The recognition that a universal nuclear deterrent such as that symbolized by the U.S. Army's "Pentomic" divisions of the 1950s was inappropriate to limited wars renewed interest in both conventional forces and special operations. It did not, however, greatly alter the view that successful strategic nuclear deterrence was based on holding a nation's civilization hostage. Indeed, a mutual hostage relationship came into existence and efforts were made to codify that joint vulnerability. Disarmament, meant to eliminate the nuclear "Sword of Damocles," took second

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place to measures such as the ABM Treaty and the SALT I agreement on strategic nuclear arms which sought to fix in place a simplified balance of terror.

According to this view, a strategy combining precision offense with the force economies of defense, so characteristic of modern ground warfare, was destabilizing in the nuclear context. Forces capable of counter-military strikes or defending against attack were seen as inconsistent with "crisis stability" because they might provoke either a "use it or lose it" psychology or the belief that one could fight and win a nuclear war. More effective offensive and defensive weapons raised concerns about "arms race stability," a desire to avoid the measure/countermeasure syndrome. Modernization of nuclear forces even raised concerns about political instability within democracies as the nuclear debate polarized societies and between the superpowers as the Cold War rhetoric became more shrill during modernization cycles.

Later in the Cold War, understanding of the relationship between deterrence, defense, disarmament and stability became more complex. Circumstances were discussed in which force modernization, missile defenses and certain arms reductions were seen as both stabilizing and enhancing deterrence. Still, at the heart of deterrence theory, simple or sophisticated, was the adversarial relationship between the United States and the Soviet Union embodied in a bipolar balance of terror. The nuclear forces of the three other nuclear weapons states, each first appearing on the stage with some fanfare, slipped out of the spotlight to become minor sideshows even though their force levels consumed significant resources and reached levels well beyond those which existed when the two superpowers were so anointed.

Now that the Cold War is over, there is extensive uncertainty as to how to think about stability and deterrence. This uncertainty has an idealistic component—the Cold War is over so why not begin the end of the nuclear age? Why not bring to the realm of nuclear weapons the global bans contained in the Biological Weapons Convention (BWC) and the Chemical Weapons Convention (CWC). This renewed interest in denuclearization is not driven by the romance of a "new world order" of harmony, freedom, and prosperity. The vision of such a new world order based upon universal adherence to international norms appeared briefly at the end of the Gulf War as the Cold War dissipated, but a sound foundation was destroyed in Yugoslavia. Developments in places like Somalia, Chechnya, and the like have continued the process of weakening global multilateralism. The alternative, however, has not been a return to the Cold War. Rather, we have seen an effort to reduce the erosion of international norms even as more and more countries assert greater independence in their policies and as regional and ethnic turmoil flare in nearly every part of the globe. Particularly with respect to weapons of mass destruction, the declaratory policy of nations continues to oppose their spread, even as the objective conditions for success remain uncertain.

Thus, we see a number of conflicting trends that will influence considerations of stability and deterrence in the post-Cold War era. The bipolar architecture is gone, but a strong mono-polar architecture built around international law and norms has not emerged. Nor is the United States so clearly the all-dominating remaining superpower that some pundits had proclaimed. At the same time, the greater independence being displayed, in particular by the former allies of the superpowers, has not yet led to a truly multi-polar world in which the security equation is reflected in classical regional balances of power.

We have been unable to define exactly what the post-Cold War era will be like because great uncertainty exists as to how nations will organize to deal with real security concerns. We are in a

period of transition, but a transition to what? And what does the existence of weapons of mass destruction mean for the concepts of stability and deterrence in the years ahead? One can imagine a number of different scenarios. One can also see that the future of nuclear weapons cannot be divorced from that of other "weapons of mass destruction."

Weapons of Mass Destruction

The term "weapon of mass destruction" has a long lineage. Early use of the phrase was charged with a connotation of illegitimacy, and the phrase was often used in anti-nuclear political campaigns. Over time, however, it has become a part of the jargon of the deterrence theorists as "WMD," typically comprising nuclear, chemical, biological, and radiological weapons and anticipating any other weapons which could threaten large populations shortly after use. Sometimes means of delivery such as ballistic missiles are covered by the term, but more often than not they are simply mentioned in the same context.

The weapons tagged WMD all carry a special onus, but important differences exist among them. All can be packaged in small containers, all can cause widespread death, but only nuclear weapons cause instantaneous physical destruction. A biological weapons attack would be difficult to detect in the real world and can cause death on a massive scale, but advanced or early warning can permit defensive measures and, in some cases, medical treatment. Chemical weapons, as we now know them, are less lethal than nuclear or biological weapons. Like biological weapons, chemical weapons have significant drawbacks as tactical military weapons including uncertain target coverage and effectiveness, the existence of countermeasures, and the dangers they pose to friendly forces. CW and BW can impose a significant burden on forces under attack by requiring them to operate in protective gear and in a more complex, deceptive mode, but they may also impose that problem on attacking forces. They can be militarily effective in special scenarios, contaminating and disrupting logistics for example, but their timeliness and effectiveness may actually be less than now provided by advanced conventional munitions. Against unprotected populations, however, they are true weapons of mass destruction with a particularly powerful psychological component as well.

Alternative Visions of the Future

During this period of transition after the Cold War, the most immediate period will reflect the status quo. How long that period will last remains to be seen. What do I mean by the status quo? Today, both the United States and Russia remain superpowers in the sense that they both retain large numbers of strategic nuclear forces. The global political and economic impact of Russia is less than it will someday be because the recovery from the collapse of the Soviet Union has not yet taken place. This is not to say that Russia is not a global player. Russian policy on issues such as Yugoslavia, the Middle East, and nonproliferation, for example, can be critical. At great distances from its border, however, Russia's economic and military reach is narrow in scope.

In some similar ways the United States has also lost influence. Although the economic troubles of the American economy seem trivial when compared with those of most other nations, they have been sufficient to turn the American political focus inward and to cause the United States to spend its money accordingly. This coincided with the need to express pent-up desires for more independent policy approaches by many nations which during the Cold War placed unity first and saw American leadership as the keystone of their national security strategies.

Increasing tensions between Moscow and Washington are not a sign that the Cold War is returning, any more than promises not to target one's missiles at the other meant that it is over. Even during the most ideological phases of the Cold War conflict, Moscow and Washington found geopolitical differences, and also some area of common ground. In a post-Cold War era, we are seeing elevated in the bilateral relationship long existing issues which were simply obscured by the Cold War competition. Thus, it is not surprising that there will be tension between Russia and other countries over the status of ethnic groups in Russia and over Russia's role in neighboring countries, many of which were created out of the breakup of the Union of Soviet Socialist Republics. Nevertheless, despite some of its own actions complicating both nonproliferation and regional stability, Russia has been prepared to cooperate in a number of areas to strengthen international norms against proliferation and to participate in some of the more remarkable peace processes which have emerged in recent years.

Both of the nuclear superpowers have been prepared to show some restraint in the use of their own military force and in the sizing of their deterrents. Furthermore, they have worked together with other nations to maintain at least the legal architecture for the spread of nonproliferation commitments. Neither has completely left behind its Cold War concerns about the other, but, despite recent setbacks, the level of cooperation is remarkable given the rapid and uncertain change which has taken place.

The other nuclear weapon states have also committed themselves to restraint even as they are more reluctant to reduce nuclear forces in being. In some ways, the post-Cold War era has been easier for these states. Because their nuclear forces were never so definitively justified on the basis of a bipolar world, their doctrines of stability and deterrence have been less effected by its demise. The Sino-Soviet split made clear at an early date that the world was less strictly bipolar than some analysts maintained, but then this should have been obvious in the case of France and the United Kingdom as well.

Throughout the Cold War each of the five nuclear weapon states discovered that it had important policy objectives not necessarily shared by the others and largely divorced from the question of weapons of mass destruction. The geopolitics of the Cold War often served to dampen the expression of these differences, but the periodic emergence of these issues even during the Cold War was a measure of how persistent and important they were. With the end of the Cold War, they will become even more emphatic. Under the status quo scenario, however, one would anticipate that they would be managed with restraint—exceptions serving mainly to demonstrate the rule.

Under the status quo scenario, non-nuclear weapon states would tend to follow their current policies. Declaratory policy would press for broader disarmament even as economic policies would promote the spread of the technologies which make possible the creation of weapons of mass destruction. Some of these states will retain a strong nuclear allergy while others will privately work to keep options open. The nuclear question will inevitably find itself caught up in the North-

South debate over development just as occurred in the nuclear arena with “Atoms for Peace” and Article IV of the Nonproliferation Treaty and in the chemical arena with a negotiation of the Chemical Weapons Convention. In time the same psychology will intensify in the area of biological sciences related to biological weapons.

In summary, inertia may well result in a continuation of the status quo for many years to come. Within an architecture of international norms antithetical to weapons of mass destruction, those that have nuclear weapons will keep them while showing restraint and those that do not have them will show restraint while keeping their options open and exploiting the difference between haves and have nots for political leverage.

In the long run, political and economic forces may force the end of the status quo. But which way will it go? Will the world move towards nuclear disarmament on a scale equal to or beyond that which it has sought for chemical and biological weapons? Or will it move in the opposite direction with the spread of nuclear weapons and other weapons of mass destruction around the globe? It's not too soon to think about either option.

Disarmament as an alternative future has gained credibility with the end of the Cold War. In a sense, the arguments both for it and against it have been weakened by the same events. Not one of the five nuclear weapon states seeks to give its nuclear forces the centrality that they had in previous periods. All are committed under Article VI of the Nuclear Nonproliferation Treaty to steps which would provide for the cessation of the nuclear arms race and its elimination in the context of general and complete disarmament (GCD). Although the timing and phasing of the Article VI commitment has never been precisely defined, all five nuclear weapon states have acknowledged their obligation and argue that arms control measures already negotiated, negotiations underway, and declaratory policies of restraint are demonstrations of good faith implementation. Zero may not be near at hand, but it remains the stated goal.

One can imagine a world in which all existing nuclear weapons have been dismantled. One can imagine that such a world would be very different politically than the world that exists today, but the mechanisms for nuclear disarmament would be derivative of inspection regimes negotiated in the START Treaties, the Chemical Weapons Convention, and other negotiations such as those underway for a cut-off on the production of fissile material. Undoubtedly for such an outcome to actually occur, regional stability problems that we face today would have to be resolved. Also, it is doubtful that nuclear disarmament could take place in a world in which certain authoritarian and aggressive regimes which exist today were to remain. Nevertheless, one cannot rule out the possibility that the conditions for nuclear disarmament could be achieved. Unfortunately, one cannot rule out the opposite possibility either.

The spread of the knowledge, technology, and materials necessary to produce nuclear weapons and other weapons of mass destruction, already extensive, is accelerating through a process of education, trade and development which will continue. Perhaps the greatest challenge of the immediate post-Cold War era is to be found in the reality that the ability to produce weapons of mass destruction is spreading to troubled regions faster than the many peace processes can successfully address the causes of conflict. We speak today of five nuclear weapon states, but we acknowledge the advanced capability of at least three threshold states—India, Pakistan, and Israel. To this list we can add the uncertain status of North Korea and Iraq, and the uncertain intentions of other nations such as Iran. All of these countries exist in regions of frequent violence and conflict.

The deployment of nuclear weapons in these regions carries with it not only instability for the region, but global implications as well.

It has become popular to think of nonproliferation as the spread of an international norm like an oil slick over more and more of the world's troubled waters. Successes in South Africa, Belarus, Ukraine, and Kazakhstan are often cited as measures of movement ever closer to universality. Indeed, roll back remains an important concept in nonproliferation. It gives hope in the face of failure. It offers the possibility of undoing what has been done. Nevertheless, the spread of technology and the persistence of political and economic disputes should remind us that the veneer of the international norm against proliferation remains very thin, and the prospects of a chain reaction toward proliferation resulting in regional nuclear balances remain significant. If North Korea were to go nuclear, what does it mean for South Korea, Japan, and perhaps Taiwan? What would the emergence of new nuclear weapon states mean for India and Pakistan and in the Middle East? And what then of other advanced nations such as Germany, Brazil, and Argentina, especially if the politics of weapons of mass destruction reopens the issue of membership on the United Nations Security Council, etc.?

Universal disarmament and widespread proliferation are not the only alternative worlds to the status quo. Another alternative is what many experts have come to call the world of virtual proliferation. This is a world in which a large number of nations have the ability to produce weapons of mass destruction, but the conditions are such that they choose not to. In this world concern would remain about compliance by nations, but it is almost by definition a world with particular concern about rogue regimes or the acquisition of nuclear weapons and other weapons of mass destruction by subnational entities and terrorists. In such a world the benign conditions necessary for nations to forego nuclear weapons status imply widespread feelings of secure boundaries and economic prosperity. Free trade would be extensive and global travel largely unencumbered. In that world stability among nations and deterrence as we have known it would not be central issues. Of greater concern would be the threat to international order and prosperity posed by subnational actors not amenable to the types of military deterrents theorists usually consider. Such subnational actors would, in a world in which they had access to weapons of mass destruction and were using them, stress the very conditions of international markets and civil rights which would have permitted nations themselves to move away from weapons of mass destruction in the first place. Thus, the issue of denuclearization cannot be separated from the issues of domestic law, order, and justice.

Considering a More Near-term, Step-by-Step Perspective

All of these worlds are possible, and in the more immediate years ahead, combinations of the elements of each are even more likely. Certainly one can expect to see the interaction of the status quo with steps toward disarmament, proliferation setbacks, regional balances of power, and the challenge of virtual proliferation, all at the same time. Let me offer a more prescriptive view of an alternative world, one in which the transition from the Cold War to a truly post-Cold War era is achieved while enhancing stability.

Rather than jump ahead perhaps fifty or more years, to see which of the alternative worlds described above has emerged or is emerging, let us look ahead only about fifteen years. I will focus primarily on the nuclear question, but I will weave in and out themes related to chemical and biological weapons. Again, it is important to keep in mind the similarities and differences of the various weapons of mass destruction.

Much can change even over fifteen years, but much can also remain the same. By 2010, through elections, the U.S. would have eight new congresses and from two to four follow-on administrations. At the same time, some ethnic violence dating back two millennia is likely to continue. Even Qaddafi and Saddam Hussein could still be in power. My heuristic assumption here is that the START II reductions would have been completed and that the force structure described in the recent Nuclear Posture Review (NPR) was sustained during that period of reductions. Maintaining deterrence in a broad form will remain essential as a matter of policy, but the centrality of nuclear deterrence will depend on the nature of the world which has come into being.

Looking backward at force structure and policy, one can gain a perspective on the future. The experience of deterrence at low levels is not new, after all, much lower levels were in existence during the nuclear build up of the late 1950's through the 1960's. Levels of 3000 to 3500 deployed nuclear weapons have existed before, but during modernization leading to large, flexible stockpiles. Fifteen years from now, there will be similarities and differences when compared to the last time these lower levels were deployed. Unconstrained by arms control, eighteen Ohio Class D-5 submarines could have carried 5184 warheads alone over the next fifteen years (and twenty submarines were once planned), but SLBM deployed warheads are START II limited to 1750. The actual number of SLBM warheads deployed is likely to be lower. The NPR forces structure under START II calls for 450 to 500 ICBM warheads. This level of strategic ballistic missile warheads is not new. In 1971, the U.S. had about 2000 deployed on ICBMs and SLBMs, but a much larger nuclear armed bomber force brought the total to around 5000 deployed warheads. By 1971, however, the actual total number of nuclear weapons in the U.S. stockpile had already begun to drop, a process which is being repeated today at a rate of about 2000 weapons per year.

Fifteen years from now, we will be facing significant modernization questions. The U.S. strategic modernization program tends to come in roughly twenty-year cycles with the 1960's and the 1980's providing the major funding. The 2010’s may reveal new modernization issues. The B-2, of which there may only be 20, will be 18 years old, and the D-5 Trident II will be 21 years old. The modified Minuteman IIIs, however, will be approaching 40 years old, and any B-52s will be approaching 50 years old. The B-1, which first flew in the 1970’s, will be in a non-nuclear role. Political and technological change is accelerating, but the U.S. has no follow-on nuclear weapons designs or delivery systems planned, and much of the nuclear weapons and delivery system infrastructure is in limbo, being retained as a hedge while uncertainties about the future remain. The likely status of that infrastructure and the overall defense industrial base fifteen years from now is an unknown.

Lessons from the Evolution of U.S. Doctrine

A look at the evolution of thinking about U.S. nuclear doctrine in past periods might also help inform our speculation about the future. Most such discussion focuses on the few words which have provided short hand about declaratory policy. A brief chronology will remind the reader of much of the history.

- •1954 = "massive retaliation"
- •1963 = "flexible response"
- •1965 = "assured destruction/damage limiting"
- •1967 = "mutual assured destruction"
- •1969 = "sufficiency"
- •1974 = "essential equivalence"
- •1976 = "rough equivalence"
- •1979 = PD-59/"countervailing strategy"
- •1981 = NSDD-13/"peace through strength"
- •1983 = "strategic defense initiative"
- •1989 = "weapons of last resort"

A few comments on this chronology are in order. First, these declaratory policies, at heart, highlight two realities; namely (1) the destructiveness of nuclear war and (2) the changing balance between the United States and the Soviet Union. Underneath these public phrases is an implementing policy which reflects far more continuity.

Nuclear weapons doctrine has actually evolved very slowly and cautiously, and this process may give us insight for the future. Perhaps the most significant departure from mainstream deterrence theory during the Cold War was Secretary of Defense Robert McNamara's requirement to retaliate against an attack in such a way that one guaranteed the destruction of a certain percentage of the population of an aggressor. This departure was short lived, in part because of questions about its morality or legality and in part because doubts about its credibility were believed to undermine deterrence. U.S. doctrine understood that escalation, however much it was primarily counter military could, at some point, involve major countervalue consequences. The entire concept of the escalatory ladder and escalatory control, in fact, was designed to strengthen deterrence by combing the notion that the U.S. had militarily significant options which, even if they failed in their immediate military purpose, might ultimately still lead to unacceptable destruction.

Basic U.S. deterrence theory, in reality, was "flexible response" before the United States gave it that name and "flexible response" long after it dropped the name. U.S. policy has long been to hold at risk that which an aggressor values most in a way which creates great uncertainty that his attack can succeed and great certainty that it would not be worth the price even to try. If defense requires a nuclear response, the U.S. could escalate at a time and in an intensity of its choosing in a manner designed to terminate conflict on terms acceptable to the U.S. and its allies. Except for a brief period in the Sixties, the U.S. has not targeted population per se. The U.S. seeks to limit collateral damage, but it recognizes the countervalue implications of a nuclear exchange. The U.S. will not be the first to send its military forces into war against another nation, but it does not rule out the first use of nuclear weapons in response to major attack by a nuclear weapon state or its allies. U.S. policy was that nuclear retaliation is a "last resort" before NATO highlighted that

phrase, but that U.S. and NATO doctrine never meant that alliance nuclear forces would wait until the U.S. or those who rely on its nuclear umbrella were defeated before nuclear use would be authorized.

In summary, U.S. nuclear doctrine, whether associated with large numbers of nuclear weapons or small numbers, has recognized the destructiveness of nuclear weapons as an ultimate sanction, but it has not been based upon the belief that a bald threat of vast countervalue targeting was consistent with a credible deterrent. It has always sought flexible options. This history would suggest that at very reduced levels, nuclear weapons states may keep in mind, and perhaps make more explicit in their public statements, the countervalue consequences of the use of even a few nuclear weapons. At the same time, they will always wish to maintain more limited options and concepts of escalation control and war termination even as their declaratory policies attempt to reflect political change.

Declaratory Policies of the Future

New declaratory names for the deterrence policies of nuclear weapons states will undoubtedly accompany further reductions. In 1994, the Clinton Administration conducted its Nuclear Posture Review and examined post-Cold War deterrence. Its policy continued the evolutionary trend with little change in force structure or declaratory policy—the most notable public statement being its "lead, but hedge" commitment to reductions. Over the next fifteen years or so, one can expect similar declarations. Perhaps our policy will be called a "sustained deterrent" reflecting maintenance of the Triad. Perhaps it will be called a "flexible deterrent" to reflect capabilities and options. At some point, it might be called a "responsible hedge deterrent" to reflect the need to maintain a floor on capabilities until great uncertainties are resolved. Some may wish to call it a "minimal deterrent" to reflect deep reductions while differentiating it from a "minimum deterrent" which carries with it the baggage of countervalue targeting only.

At a later time, one could imagine an increasingly "virtual deterrent" in which numbers and readiness levels are low and the consultative process on use is more extensive than one has today, even by NATO standards. This "virtual deterrent" would still be in national, rather than international hands, and would be more substantial than the "virtual capability" that threshold states and advanced industrial states have today. Rather, it would reflect an evolution of policy under which nuclear weapons would be increasingly "held in trust for mankind." Over time, international supervision of material and facilities would be strengthened both in nuclear weapons states and non-nuclear weapons states until, perhaps, a world has been created in which all existing weapons are dismantled. Nuclear disarmament might then be achieved.

Without a major change in the world as we know it, the final dismantlement of all existing nuclear weapons will not be possible. Even then, however, the knowledge of how to make an atomic bomb will not have been eliminated, and the basic human flaws which continue to build a legacy of violence and war around the globe will remain leaving us with the prospect that conflict will return. In that environment, fear will remain that some nation or entity might again build nuclear weapons. Ironically, one of the major issues of a denuclearized age would be the determination of the circumstances under which legitimate authorities might reconstitute a nuclear force. Even in an age

of disarmament, a capability to reconstitute a nuclear deterrent will remain an important hedge and safeguard. The nuclear age does not end with the dismantlement of the weapons. Again and again we are reminded that throughout the process of reducing nuclear dangers that there are other dangers as well and that fundamental conditions need to changed if we are to make the greatest progress. We are faced with important questions for which answers must be found.

Questions which Remain to be Answered

A review of some of the questions which must be addressed as we pursue greater post-Cold War stability in an age in which the technologies of mass destruction are widespread would be useful. Few of the most important questions are technical; all are difficult. Sometimes they seem more like contradictions or dilemmas because they reflect the inconsistent pace and direction of history. In many cases they reflect conflicting desires of different societies. Both questions and possible answers will shape the evolution of nuclear doctrine and force structure.

The most important questions are forced upon us by political change and uncertainty. Democracy, market economies, and regional peace processes are not yet a global norm, but they are widespread and increasingly the standard by which governments are judged. Nevertheless, Iraq, North Korea, Libya, and the like have displayed remarkable staying power, and the ethnic violence in the former Yugoslavia is proving not to be the last reminder of old animosities. Civil disorder or ethnic violence is a problem in a number of threshold states or potential proliferant nations. In addition, such violence is a consideration in the future of existing nuclear weapons states. The war in Chechnya does not mean that we face a nuclear "Yugoslavia" in Russia, but it highlights the reality that nuclear weapons are known to be based in some of the nations such as Russia, China, and Ukraine facing turmoil and could become a factor in countries such as India, Pakistan, Israel, North Korea, Iran, Algeria, perhaps even someday South Africa.

Some of the questions are large in scope. Is geopolitical progress already underway reversible? Is real peace possible? Other questions are more narrow or technical. What are the motives and incentives in the post-Cold War era to have nuclear weapons? Who has them, and who wants them? And what do they want? Because technologies useful to a nuclear weapons program continue to advance, are increasingly dual use, often reduce the resources necessary to acquire and maintain nuclear weapons, other WMD, and their means of delivery, and are increasingly spreading as part of the emerging global economy, are we really facing extensive "virtual proliferation?" In other words, will certain nations of concern become so advanced industrially that only a final decision would stand between nuclear weapons and nonproliferation? To what degree, then will the ability to understand and influence intentions rather than capabilities determine our nonproliferation focus? And to what degree will our military and intelligence concerns be focused less on existing deterrence than on measures to deal with covert capabilities and breakout? What contingencies should be funded related to prevention versus response—the nonproliferation/counterproliferation balance? To what degree do the issues of trust, verification, and/or safeguards apply to a nuclear balance, and to what degree are they a part of nonproliferation?

Certainly, proliferation will weigh more heavily in nuclear policy decisions in the years ahead, but here uncertainty also creates dilemmas. For example, Article VI of the NPT obligates ultimate

disarmament for existing nuclear powers, but low levels may create incentives for some nations to acquire or keep nuclear weapons as it becomes easier for more nations to approach levels to which the superpowers may reduce. Indeed, many states which support Article VI's goal of the elimination of nuclear weapons also have relied upon security guarantees from nuclear weapons states, particularly the United States, to justify their own decisions not to seek nuclear weapons. Indeed, the nuclear umbrella, positive security assurances, Cold War bipolar stability, and alliance security commitments have played an important role in promoting nonproliferation. Will a desire for a lower nuclear and military profile combined with increased isolationism reduce the ability and willingness of the United States to make credible commitments which may be important to nonproliferation, particularly in troubled regions? Many of the questions we face about the relationship of nuclear deterrence to nonproliferation involve the fundamental security calculations of non-nuclear weapons states and the role they see for the United States and other nuclear weapons states in those considerations.

The other side of the calculation is, of course, those of the nuclear weapons states. They have pressed for near universal commitment to an emerging international norm of nonproliferation even at the price of greater pressure on themselves for denuclearization. At the same time, they see that widespread virtual proliferation is inevitable. They reconcile these trends in opposite directions largely by stressing the importance of creating the political and security conditions necessary to eliminate incentives for any decision to acquire nuclear weapons. Whatever the merit of this logic, or the likelihood of its fulfillment, it still leaves open important issues concerning nuclear deterrence which would need to be addressed during the transition period, i.e. the world as it really is today.

These deterrence dilemmas are considerable. In theory, the nuclear weapons states need flexibility to meet diverse scenarios which are multiplied by the great political and technological change under way. Yet, the arsenals for deterring nuclear powers may be different from those required to dissuade proliferation or deter a new proliferant. Indeed, the world is likely to be faced with more scenarios in which there is a far less compelling nuclear role and for which forces in being are inappropriate.

The ability to maintain an appropriate post-Cold War deterrent will be complicated by the broader policy environment. We have already discussed the inherent tension between nonproliferation and nuclear disarmament inherent in Article VI, and we will return to that topic below in the context of phased reductions. We have also discussed the importance of security commitments to nonproliferation. Maintaining a balance in these considerations will be further complicated by other considerations including shrinking budgets for defense and diplomacy, increased uncertainty as to the proper role of international organizations such as the UN and the IAEA, a resurgence of the North-South ideological split now reflected in the debate over NPT extension, and the broader reordering (or disordering) of the international system. Thus, a reassuring, but effective deterrence policy must balance its declarations in support of political change and disarmament with the need for credible nuclear guarantees and the capacity to meet overseas obligations. We have found it easiest to say that the Soviet threat is gone and we face a "new world disorder." In the nuclear arena and with respect to the deterrence of WMD, we also find it easier to justify retaining deterrence by reference to a hedge against the return of the old Soviet threat rather than by focusing on what might be new or different about the world that seems to be emerging. In the short run,

with the Cold War so recent, this may well be a sound outcome. If we do leave the Cold War far behind us, however, the questions will become more intense and more difficult.

Existing Nuclear Weapons States and the Geopolitics of Numbers

For deterrence policy, the post-Cold War era requires us to reconcile the following perspective: Belief in the plausible use of nuclear weapons by the U.S. in the years ahead has declined even as the plausibility of their use by others seems to be increasing. Thus, while maintaining deterrence against large arsenals to hedge against adverse political developments, our deterrence theory must cope with small nuclear threats and fears of other weapons of mass destruction while meeting the needs both of those who want nuclear security guarantees and of those who want guarantees that nuclear weapons are on the path to elimination. And throughout this, we must keep in mind international norms and goals of nonproliferation.

The arsenals of the existing five nuclear weapons states will influence these developments. Despite much common interest and similarity of policy, at least on the surface, not all of the nuclear weapons states have made the same calculations about the post-Cold War era. Nor have they completely set aside concerns about each other. Take for example, some of the American considerations. The Soviet Union and the Warsaw Pact are gone, but former communists rule in a number of the central and eastern European states. To what degree must the U.S. hedge against hostility of large nuclear states such as Russia, or China, or a resurgent coalition made up of some states formerly part of the USSR? Suppose events do not go well in Russia or Ukraine. Could we become adversaries again? Given the political uncertainty, how much uncertainty in the size of the Russian nuclear stockpile can the U.S. accept? What steps can be taken that would bound these uncertainties?

Suppose China continues its economic growth and continues on a path to become the dominant power in Asia. What does it mean for the U.S. and its allies and other trading partners in that region? What level of nuclear stockpile does China believe it needs, how is it related to the arsenals of others, and what would be tolerable for other nations? What if the in-being Chinese capacity to produce nuclear weapons were to become significantly greater than that of the other nuclear weapons states? Furthermore, China is not the only nuclear weapons state whose nuclear stockpiles will come under increased scrutiny in the post-Cold War era. The size of the superpower nuclear arsenals are declining significantly, but the large numbers remaining will continue to come under the public spotlight.

Increasingly, however, it will be noted that the arsenals of the other three declared nuclear weapons states are growing. This will raise many questions which those countries will have to address, but it will also raise questions for the U.S. which have not been significant for many years. For example, what do other's stockpile levels mean for U.S. foreign policy? In the years ahead, the geostrategic implications of numbers will have to be examined. In the past, the U.S. sought to maintain overall equality with the Soviet Union to inspire confidence in its deterrent and the nuclear umbrella. The START II Treaty, however, was negotiated with a dual ceiling in part to de-emphasize a preoccupation with exact equality between Russia and the United States. A new cooperative relationship was envisioned. The prospect that four former Soviet states might retain

nuclear weapons, however, would have changed the traditional measures of balance. Could the United States, with its global obligations, tolerate the possibility of some coalition of states of the former Soviet Union with a combined arsenal larger than the U.S.? If so, under what circumstances? If not, why not? Despite the new U.S./Russian relationship, parliamentarians in Moscow have sought to reinstate the centrality of Russian equality with the U.S. in numbers, and the U.S. itself has debated the rate of its unilateral draw downs in the context of existing Russian numbers. In the future, does this mean that Russia and the U.S. will return to an insistence on fairly strict numerical equality? If so, we will need to consider what that tells us about the geopolitical nature of nuclear weapons. And if U.S. and Russian reductions continue, we need to consider the interactions with the other nuclear weapons states and with the Ukraine which has now joined the NPT and is currently removing from its soil what had been the world's third largest nuclear arsenal.

The questions go on. If Russia and the U.S. were to reduce to 2000 or 1000 weapons, would perhaps China be inspired to increase its forces to comparable levels? What about the British and French? Conversely, in the face of deep cuts by the two superpowers, would Britain, France, and the PRC initiate further cuts of their own, or would they press for the superpowers to reduce first to the levels of the three smaller nuclear forces? The answers to these questions will tell us much about multi-polar nuclear deterrence, but it will also challenge the reliability of the nuclear umbrella of the United States and the credibility of Positive Security Assurances (PSAs) which it might give. In some ways, the answer to the balance of numbers question will influence how the five nuclear weapons states are viewed separately by other nations and how they are viewed as the Permanent Five (P-5) of the United Nations Security Council.

The reduced force levels of the five nuclear weapons states will certainly have important implications for non-nuclear weapons states protected by the nuclear umbrella, extended deterrence, or PSAs. If those commitments are seen as weakened in the context of world conditions at the time, will some of these states seek their own weapons of mass destruction? Will some of them seek new guarantees from other states or new alignments and alliances? What will be the implications for the UN and its Security Council? The analytical excursions are obvious and numerous. We will need to look also at the impact of reduced force levels on threshold states and other potential proliferants. Will reduced levels create incentives for threshold states to deploy and build to equality? Indeed, would virtual proliferants be inspired to make decisions to go nuclear in order to obtain a perceived instant superpower status? The very asking of these questions highlights how important the global context will be for considering the future of nuclear deterrence at reduced levels.

One assumes that the decision to go to zero will be a far more difficult decision than any decision simply to reduce. If the circumstances are created in which all existing nuclear weapons are dismantled, however, the nuclear deterrence question does not go away. The prospect that a nation might reconstitute a nuclear force will influence behavior, and it will also present the question of who, at zero, reconstitutes nuclear deterrence if someone proliferates nuclear weapons or other weapons of mass destruction.

Conclusions and Recommendations

This paper has inspired more questions than can be answered with the knowledge we have today. In the end, the best answers to the questions we have raised, and to reconciling inherent dilemmas, are those associated with improving the security of nations and bringing about the political and economic changes that are necessary to reduce international violence and war within nations. The problem of the irrational actor, the non-deterrable entity, or terrorist armed with WMD will not make solution to these problems any easier. Nevertheless, a few conclusions and recommendations may be helpful. Circumstances have changed, but much of the logic around nuclear deterrence will change less.

A cautious, evolutionary approach is in order. The United States and the other nuclear weapons states must recognize that nuclear deterrence calculations will often be less salient to post-Cold War security considerations, but they will not go away. Indeed, in an age of turmoil and the spread of the technology of all forms of weapons of mass destruction, nuclear forces will continue to have meaning in our analysis of more complex determinants of stability. The following recommendations, not necessarily in order of priority, would seem appropriate:

1. Responsible deterrence will remain vital to reducing the danger presented by weapons of mass destruction, and that deterrence will require both nuclear and conventional strength.

2. Nuclear deterrence must be implemented in a manner supportive of an overall strategy designed to reduce incentives for proliferation by advancing regional security and promoting political and economic reform.

3. Reductions should take place only in the context of the conditions being created which would justify them.

4. Arms control and disarmament progress will be necessary for non-nuclear weapons states as well as nuclear weapons states if deep reductions are to be possible.

5. In the case of nuclear nonproliferation, a renewed emphasis on the control of special nuclear materials will be required, but a freeze on the production of fissile material outside international control, followed by step-by-step reductions in un-safeguarded material taken in the context of improvements in security calculations, could provide a foundation for greater confidence in a world of reduced nuclear weapons.

6. Responsible international organization will be necessary, building upon the success of bodies such as NATO.

7. The United States must remain engaged in world affairs and provide leadership on those issues where history and geography have given it a unique ability to contribute.

8. The U.S. should lower the profile of nuclear weapons, but must maintain a strong nuclear deterrent, as an ultimate sanction, against overwhelming threats such as those posed by weapons of mass destruction.

9. The U.S. should also maintain sufficient flexibility in its nuclear and non-nuclear forces and policy to reflect the different, complex world which is emerging.

10. Progress in nuclear arms control and disarmament can help as a guide, a gauge, and as leverage in creating the conditions for moving in the direction of further reductions, but care must be taken not to confuse cause and effect.

11. Increased military cooperation among states can make a significant contribution to stability, but only if some of the ideological baggage of the Cold War can be left behind, for example, in cooperating in missile defense to dissuade and protect against proliferation rather than opposing missile defenses in order to hold populations hostage to retaliation by nations which have declared their friendship.

12. Recognition that nuclear weapons will increasingly have to be held in trust for all mankind and be subject to greater consultation should be included in the evolution of the deterrence policies of the U.S. and other nuclear weapons states, especially as they examine the future of positive security assurances (PSAs).

13. Transparency and the strengthening of compliance with all global norms by both nuclear weapons and non-nuclear weapons states will be essential for progress toward further reductions.

14. Diplomacy should be aimed at the real conditions for security and arms reductions and not the appearance of progress so often reflected in declaratory pledges, the debates over the removal of pretexts for proliferation, and in the introduction into the debate over proliferation of archaic issues left over from the Cold War or the North-South debate.

We are in transition from the Cold War era to a new century which we have not yet defined because its shape is not yet clear. This paper has raised more questions than it has answered, and it has not even raised all of the questions. Hopefully, an early effort to understand forces and trends will permit us to bend them toward a more peaceful, safer world. The process of achieving that understanding may also be a process for building that better world.